

# Soloist2-S

## MPEG2 Playback System

### Overview

The Soloist 2S ads built-in analog broadcast quality video and audio switching to the Soloist 2. This broadcast quality local origination playback solution integrates automatic switching, sophisticated scheduling, playback verification, and ultra-high quality MPEG 2 playback with up to 60 hours of storage.

### Benefits

#### > Ultra High Reliability

As an embedded system, the Soloist 2S has been engineered for ultra-high reliability. At its core, a high speed RISC CPU running under Adtec's very video transport operating system (VTOS) provides unparalleled stability. The PC ritual of re-booting is unheard of.

#### > Exceptional Performance

The Soloist 2S is a performer, from the moment it is removed from the box, its rugged durable mechanical and electrical characteristics are evident. No power switch was incorporated in the design, reiterating its rugged reliable nature. Once plugged in, the Soloist 2S is ready to run intended for 24-7-365 operation; nothing compares!



Soloist2-S

#### > Every Output

The Soloist 2 adapts to virtually any display technology. Its analog outputs include standard Composite, YC, RGB, and YUV (Component) video. Optionally, add SDI (Serial Digital Video) to integrate into the very high-end display technologies. Audio outputs include balanced and unbalanced stereo.

#### > Easy Integration

As a stand-alone solution or component part in any local origination system, the Soloist 2S is adaptive. Its small footprint, large storage capacity, low power consumption and MPEG playback compatibility allow it to easily integrate into many environments. From broadcast to cable to demanding professional audiovisual applications, there really is no equal to the Soloist 2S.

#### > Built-In Switching

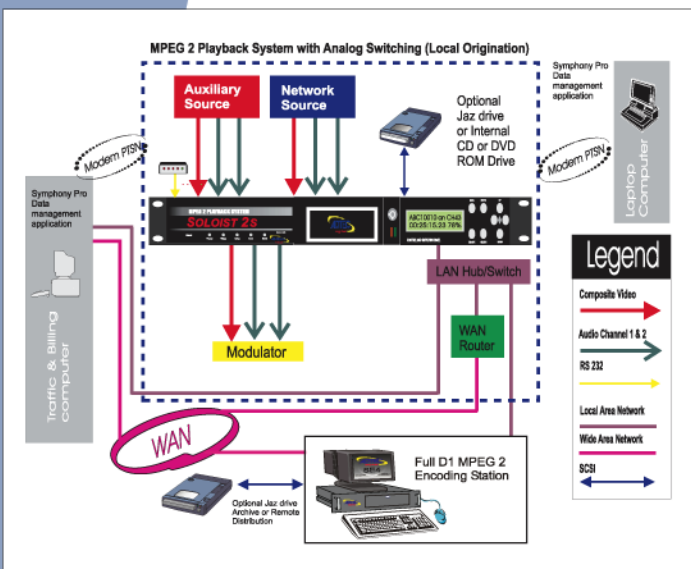
The Soloist 2S boast one of the industries highest quality video and stereo audio vertical interval switchers, no roll, pop, or color distortion, pure clean and frame accurate. A very functional auxiliary video and stereo audio input is provided for integration into live feeds with a simple GPI.

#### Availability

The Soloist 2S is available in a rugged 1 RU steel case. Storage capacity for 2 internally mounted hard drives. Optionally add a DVD drive or extra removable hard drive for loading content.

#### Applications

- Cable Local Origination Playback
- Broadcast Long Form Playback
- Hospital Education and Entertainment Channels
- High-End Entertainment Venues



# Soloist 2S MPEG2 Playback System



## FEATURES

- Unlimited scalable size, one to hundreds of channels
- Incremental channel based design
- Local Storage for up to 60 hours of MPEG 2
- Flexible support for MPEG 2 from many encoder sources
- Extremely smooth frame accurate transitions from network and commercials
- Zero Pre-Roll
- Broadcast quality MPEG 2 video and audio
- Plays content from seconds to hours
- Removable local hard drives
- External storage
- File delivery via CD ROM, DVD, Jaz or removable hard drive (disconnected headend, "sneakernet")
- Ethernet, T1, Fiber, Cable Modem, Internet, Satellite file delivery
- TCP/IP Protocol
- FTP client/server with pull or push capabilities
- Satellite data distribution via FCMP protocol
- Broadcast quality vertical interval video router
- High Fidelity balanced stereo audio router
- Auxiliary stereo audio and video input
- Tally output via NC/NO relay and open collector transistor circuit
- Auxiliary GPI input
- Time based events with NTP client
- Vertical Blanking Interval bypass for Teletext insertion
- NTSC, PAL, PALM, PALN standards
- NTSC line 21 Field Closed Captioning
- Symphony Pro application for data management and monitoring
- Manual and Automatic Traffic and Billing interface
- Serial, Modem, Ethernet and front panel control
- Keypad with front panel LCD
- Universal input power supply
- CE certified
- One rack unit chassis
- Simple reliable innovative design
- Adtec's VTOS operating system
- NOT PC based

## SPECIFICATIONS

### MPEG 2 ISO-13818

System and Program Streams  
GOP of 1 to 15, Full IBP, IP or I only  
Data rates from 1 to 15 Mbs  
MPEG Layer 1 and Layer 2 Audio  
Sampling rates of 44.1 kHz or 48 kHz  
Mono, Dual Mono, Stereo or Joint Stereo  
Data rates supported for Layer 1  
32 Kbits/s to 448 Kbits/s in 32 K steps  
Data rates supported for Layer 2  
64, 96, 112, 128, 160, 192, 224, 256, 320, 384 Kbits/s

### MPEG 1 ISO-11172-2

System Stream  
GOP of 1 to 15, Full IBP, IP or I only  
0.50 Mbs to 5 Mbs  
MPEG Layer 1 Audio  
Sampling rates of 44.1 kHz or 48 kHz  
Mono, Dual Mono, Stereo or Joint Stereo

### Standards, Resolutions and Color Frequency

NTSC  
720-480, 30 fps, Full D1  
352-480, 30 fps, Half D1  
352-240, 30 fps, SIF  
Color Frequency: 3,579,545 Hz

PAL  
720-576, 25 fps, Full D1  
352-576, 25 fps, Half D1  
352-288, 25 fps, SIF  
Color Frequency: 4,433,618.75 Hz

PAL-M  
720-480, 30 fps, Full D1  
352-480, 30 fps, Half D1  
352-240, 30 fps, SIF  
Color Frequency: 3,575,611.49 Hz

PAL-N  
720-576, 25 fps, Full D1  
352-576, 25 fps, Half D1  
352-288, 25 fps, SIF  
Color Frequency: 3,582,056.25 Hz

### A/V Inputs

Channel Video, BNC  
Auxiliary Video, BNC  
Channel 1 & 2 Audio, 5 Pin RST  
Auxiliary Audio, 5 Pin RST

### A/V Outputs

Channel Video 1, BNC,  
(Relay bypass protection)  
Channel Video 2, BNC  
(Channel and Content Preview output)  
Channel 1 & 2 Audio, 5 Pin RST  
(Relay bypass protection)  
Channel 1 & 2 Audio, RCA  
(Content Preview output)

### Video Output

Composite (BNC x 2)  
YC (4 Pin mini-din and BNC x 2)  
RGB (BNC x 4/R-G-B-Video)  
RGB (Sync on Green Option)  
(BNC x 3 R-G (Sync)-B)  
YUV (BNC x 4/Y-U-V-Video)  
YUV (Sync on Y Option)  
(BNC x 3 Y (Sync)-U-V)  
SDI (Option, BNC x1)  
Audio Output  
Output Impedance: < 600 W, balanced  
Channel 1 & 2 balanced audio, 5 Pin RST  
Output Impedance: < 56K W, unbalanced  
Channel 1 & 2 unbalanced audio, RCA

Frequency response:  $\pm 0.5$  dB 30 Hz to 20 KHz  
Hum and Noise: - 70 dB  
Harmonic Distortion: < 0.5% 30 Hz to 20 KHz

### Video Switcher

Vertical Interval: Line 10 NTSC and Line 6 PAL  
Input Impedance: terminating to 75 W  
Maximum Input Level: 1 V p-p  
Output Impedance: terminating to 75 W  
Return Loss  $\geq 40$  dB to 6 MHz  
Crosstalk: -65 dB to 4.43 MHz  
Frequency response:  $\pm 0.15$  dB 10 Hz to 5 MHz  
Tilt: <0.5%  
Differential Phase:  $\leq 0.1^\circ$  at 3.58 MHz or 4.43 MHz  
Differential Gain:  $\leq 0.1\%$  at 3.58 MHz or 4.43 MHz  
Hum and Noise: 70 dB  
Throughput Delay: 30 ns

### Audio Switcher

Input Range: -20 dB to +8 dB  
Output Range: Unity,  $\pm 2$  dB from -16 to +8 dB  
Output Impedance: < 600 W, balanced or unbalanced  
Crosstalk: > 75 dB at 20 KHz  
Frequency response:  $\pm 0.5$  dB 30 Hz to 20 KHz  
Hum and Noise: - 70 dB  
Harmonic Distortion: < 0.5% 30 Hz to 20 KHz

### Auxiliary Cue Input

Auxiliary GPI, 5 Pin RST (Tally), NO/NC CC

### Tally Outputs

NO, NC, OA (Open Collector Grounding), 5 Pin RST

### Communications

RS232 DCE, RJ-11 Loop Through  
Baud, 300 to 1,036,800  
Data, 7, 8  
Stop, 1, 2  
Parity, Odd, Even, None  
Ethernet (Telnet, FTP and FCMP)

### Networking

100 Base T

### Protocols:

TCP/IP  
EMT (Adtec proprietary physical layer multicast)  
Ethernet Multicast Transfer  
FCMP (Adtec proprietary UDP multicast)  
File Control Multicast Transfer

### Services:

FTP Client/Server, Telnet, FTP Push and Pull with Passive Mode support  
Support Gateways, User Name and Password Security, Stealth IP Address, virus immune OS LAN/WAN and Satellite data and control

### Front Panel User Interface

LCD Display, 16 by 2 backlit  
(Contrast control via cursor up and down keys)  
Key Pad, Mode, Escape, Enter, Select, Cursor LED's, Power, Video, Drive, Link, Busy

### Physical and Operational

1 Rack Unit  
19" 1.75" 14" (WHD)  
482 mm 44 mm 355 mm (WHD)  
70-240 VAC 50-60 Hz  
65-Watts maximum power consumption  
50/90 Degrees F, 30/70 RH  
CE Certified